



Canadarago Lake Watershed (0205010101)

Water Index Number

SR-204
 SR-204- 5
 SR-204- 5- 8-P385a
 SR-204-P392
 SR-204-P392-
 SR-204-P392- 1
 SR-204-P392- 3
 SR-204-P392- 5
 SR-204-P393- 7-P400
 SR-204-P399

Waterbody Segment

Oaks Creek and minor tribs (0601-0047)
 Fly Creek and tribs (0601-0176)
 Muskrat Pond (0601-0113)
 Canadarago Lake (0601-0016)
 Minor Tribs to Canadarago Lake (0601-0171)
 Herkimer Creek and tribs (0601-0177)
 Hyder Creek and tribs (0601-0178)
 Ocquionis Creek and tribs (0601-0034)
 Bailey Pond (0601-0114)
 Mud Lake (0601-0115)

Category

NoKnownImpct
 UnAssessed
 UnAssessed
 NoKnownImpct
 UnAssessed
 UnAssessed
 UnAssessed
 Minor Impacts
 UnAssessed
 UnAssessed

Oaks Creek and minor tribs (0601-0047)

NoKnownImpct

Waterbody Location Information

Revised: 07/09/2009

| | | | |
|-------------------------|----------------------------------|---------------------|--------------------------|
| Water Index No: | SR-204 | Drain Basin: | Susquehanna River |
| Hydro Unit Code: | 02050101/010 | Str Class: | C(T) |
| Waterbody Type: | River (Low Flow) | Reg/County: | 4/Otsego Co. (39) |
| Waterbody Size: | 33.1 Miles | Quad Map: | COOPERSTOWN (K-21-1) ... |
| Seg Description: | entire stream and selected tribs | | |

Water Quality Problem/Issue Information (CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

| Use(s) Impacted | Severity | Problem Documentation |
|------------------|----------|-----------------------|
| NO USE IMPAIRMNT | | |

Type of Pollutant(s)

Known: ---
Suspected: ---
Possible: ---

Source(s) of Pollutant(s)

Known: ---
Suspected: ---
Possible: ---

Resolution/Management Information

| | | |
|-----------------------------|---|----------------------------------|
| Issue Resolvability: | 8 (No Known Use Impairment) | |
| Verification Status: | (Not Applicable for Selected RESOLVABILITY) | |
| Lead Agency/Office: | n/a | Resolution Potential: n/a |
| TMDL/303d Status: | n/a | |

Further Details

Water Quality Sampling

A biological (macroinvertebrate) assessment of Oaks Creek in Index (at Route 28) was conducted as part of the RIBS biological screening effort in 2008. Sampling results indicated slightly impacted conditions, but near the range of non-impacted. In such samples the community is only slightly altered from natural conditions. Some sensitive species are not present and the overall abundance of macroinvertebrates is lower. However, the effects on the fauna appear to be relatively insignificant and water quality is considered to be good. The nutrient biotic index and impact source determination indicate low enrichment in the stream and fauna that is most similar to natural communities. These results are consistent with sampling conducted at the site in 1997. Aquatic life support is considered to be fully supported in the stream, and there are no other apparent water quality impacts to designated uses. (DEC/DOW, BWAM/SBU, July 2009)

Previous Assessment

The stream supports an adequate fishery. NYS DEC regularly stocks the stream with brown trout. (DEC/DFWMR, Region 4, December 2000)

Segment Description

This segment includes the entire stream and selected/smaller tribs. The waters of the stream are Class C,C(T). Tribs to this reach/segment, including Lidell Creek (-11), are Class C,C(T),C(TS). Fly Creek (-5) is listed separately.

Canadarago Lake (0601-0016)

NoKnownImpct

Waterbody Location Information

Revised: 09/11/2009

| | | | |
|-------------------------|--------------------|---------------------|------------------------|
| Water Index No: | SR-204-P392 | Drain Basin: | Susquehanna River |
| Hydro Unit Code: | 02050101/010 | Str Class: | A(T) |
| Waterbody Type: | Lake (Mesotrophic) | Reg/County: | 4/Otsego Co. (39) |
| Waterbody Size: | 1881.7 Acres | Quad Map: | SCHUYLER LAKE (J-20-3) |
| Seg Description: | entire lake | | |

Water Quality Problem/Issue Information (CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

| Use(s) Impacted | Severity | Problem Documentation |
|-------------------|------------|-----------------------|
| Recreation | Threatened | Possible |
| Habitat/Hydrology | Threatened | Possible |

Type of Pollutant(s)

Known: ---
Suspected: ---
Possible: ALGAL/WEED GROWTH (vegetation, algal blooms), PROBLEM SPECIES

Source(s) of Pollutant(s)

Known: ---
Suspected: ---
Possible: HABITAT MODIFICATION, Agriculture

Resolution/Management Information

| | | |
|-----------------------------|---|-----------------------------------|
| Issue Resolvability: | 8 (No Known Use Impairment) | |
| Verification Status: | (Not Applicable for Selected RESOLVABILITY) | |
| Lead Agency/Office: | n/a | Resolution Potential: High |
| TMDL/303d Status: | n/a | |

Further Details

Water Quality Sampling

Canadarago Lake is the focus of a monitoring effort by SUNY Oneonta Biological Field Station. This work began in 2009 and is to conclude in 2010 with a State of the Lake Report. Initial data collected in 2009 found water quality to be mostly favorable and fully supportive of uses. Phosphorus levels in the lake are well below the state guidance values indicating impacted/stressed recreational uses, except for elevated concentrations near the lake bottom that reflect in-lake nutrient recycling. Corresponding transparency measurements significantly exceed the recommended minimum for swimming beaches. Clarity has increased in recent years, corresponding to the appearance of zebra mussels in the lake. Measurements of pH are somewhat high but typically fall within the state water quality range of 6.5 to 8.5 and do not appear to have any impact on aquatic life support. Limited bacteriological sampling shows coliform levels to be well below the state standard for safe swimming or any other full-body contact activities. (SUNY Oneonta Biological Field Station, August 2009)

The NYSDEC collected a number of fish species from the lake to be analyzed for mercury in 2003-06. Results from this effort found some detectable levels of mercury, but at concentrations well below FDA criteria and no health advisories for the lake were issued. (DEC/DFWMR, September 2009)

The most recent NYSDEC sampling of Canadarago Lake was conducted in 1994 through the Citizens Statewide Lake Assessment Program (CSLAP). This sampling identified only minor threats to the lake. Regional Fisheries staff indicated at the time that the lake supported a very productive fishery and is a popular recreational fishery. The threats of greatest concern include the potential future impacts of invasives (zebra mussels and invasive plants), and nonpoint sources of nutrients and sediments in the surrounding lake watershed. (DEC/DOW, BWAM/RIBS and WQAS, August 2009).

Recreational Assessment

Though water quality measurements indicate full support of recreational uses, local residents have raised concerns regarding aquatic weed growth. Given the increased clarity of the water such complaints may increase in the future. Aquatic plant surveys find that the lake is dominated by primarily native species; two non-native species (Eurasian milfoil and Curly pondweed) have been noted but they do not dominant. (SUNY Oneonta Biological Field Station, August 2009)

Lake Uses

This lake waterbody is designated class A(T), suitable for use as a water supply, public bathing beach, general recreation and aquatic life support. Water quality monitoring currently available focuses primarily on support of general recreation and aquatic life. Samples to evaluate the bacteriological condition and bathing use of the lake are limited and sampling to evaluate contamination from organic compounds, metals or other inorganic pollutants have not been collected. Monitoring to assess potable water supply and public bathing use is generally the responsibility of state and/or local health departments.

Ocquionis Creek and tribs (0601-0034)

MinorImpacts

Waterbody Location Information

Revised: 07/10/2009

Water Index No: SR-204-P392- 5
Hydro Unit Code: 02050101/010 **Str Class:** C(T)
Waterbody Type: River (Low Flow)
Waterbody Size: 2.3 Miles
Seg Description: entire stream and tribs

Drain Basin: Susquehanna River
Upper Susquehanna
Reg/County: 4/Otsego Co. (39)
Quad Map: RICHFIELD SPRINGS (J-21-4)

Water Quality Problem/Issue Information (CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

| Use(s) Impacted | Severity | Problem Documentation |
|-----------------|----------|-----------------------|
| Aquatic Life | Stressed | Known |
| Recreation | Stressed | Known |

Type of Pollutant(s)

Known: ---
Suspected: NUTRIENTS
Possible: ---

Source(s) of Pollutant(s)

Known: ---
Suspected: AGRICULTURE, Urban/Storm Runoff
Possible: ---

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 3 (Cause Identified, Source Unknown)
Lead Agency/Office: ext/WQCC
TMDL/303d Status: n/a

Resolution Potential: Medium

Further Details

Overview

Aquatic life support and recreational uses in Ocquionis Creek are known to experience minor impacts due to nutrient enrichment from agricultural and other nonpoint sources.

Water Quality Sampling

A biological (macroinvertebrate) assessment of Ocquionis Creek in Richfield Springs was conducted as part of the RIBS biological screening effort in 1997. Sampling results indicated slightly impacted conditions. In such samples some replacement of sensitive ubiquitous species by more tolerant species occurs, although the sample also includes a balanced distribution of all expected species. Aquatic life is considered to be fully supported in the stream, however the community composition and nutrient biotic evaluation suggest conditions and levels of enrichment are sufficient to cause some stress to aquatic life. Impact source determination found the fauna is most similar to communities influenced by nonpoint sources and toxicity. Considerable urban debris was also noted at the site. (DEC/DOW, BWAR/SBU, June 2009)

Previous Assessment

Impacts from ammonia, residual chlorine and other pollutants attributed to the Richfield Springs WWTP discharge noted in earlier assessments have been addressed by the upgrading of the plant in 1995. (DEC/DOW, Region 4, January 2001)

Segment Description

This segment includes the entire stream and all tribs. The waters of the stream are Class C,C(T). Tribs to this reach/segment are also/primarily Class C,C(T),C(TS).